

REMARKS

Claims 1, 5 - 12, 40, 50, and 60 - 70 are pending. Claims 1, 40, 50, 60, 69 and 70 have amended. No new matter has been added. Reexamination and reconsideration of the application are respectfully requested.

The Examiner rejected claims 1,5 – 12, 40, 50 and 60 - 70 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,536,902 to Serra ("the Serra reference"). This rejection is respectfully traversed in so far as it is applicable to the presently pending claims.

The applicant has amended each of the independent claims to add a limitation that describes the sine wave attribute data selector. The features of the sine wave attribute data selector are disclosed in the specification at page 47, line 2 through page 49, line 2. The Examiner states that the Serra reference discloses an input device (120), an extracting device 20, and a synthesizing device 11 that synthesizes new attribute data based on both the original attribute data and the target attribute data. The target attribute is characteristic of the target voice signal composed of a target sinusoidal component and a target residual component. The output device 11 operates based on the new attribute data and either of the original residual component and the target residual component for producing the output signal. (*Office Action, pages 2 – 3*).

Claim 1, as amended, recites:

An apparatus for converting an input voice signal into an output voice signal according to a target voice signal, the apparatus comprising:
an input device that provides the input voice signal composed of an original sinusoidal component and an original residual component other than the original sinusoidal component;
an extracting device that extracts original attribute data from at least the sinusoidal component of the input voice signal, the original attribute data being characteristic of the input voice signal and containing amplitude data representing an amplitude of the input voice signal in the form of static amplitude representing a basic variation of the amplitude and vibrato-like amplitude data representing a minute variation

of the amplitude, superposed on the basic variation of the amplitude, pitch data representing a pitch of the input voice signal, and spectral shape data representing a spectral shape of the input voice signal;

a synthesizing device that synthesizes new attribute data based on both of the original attribute data derived from the input voice signal and target attribute data being characteristic of the target voice signal composed of a target sinusoidal component and a target residual component other than the sinusoidal component, the target attribute data being derived from at least the target sinusoidal component, and containing amplitude data representing an amplitude of the target voice signal in the form of static amplitude data representing a basic variation of the amplitude and vibrato-like amplitude data representing a minute variation of the amplitude, superposed on the basic variation of the amplitude, pitch data representing a pitch of the target voice signal, and spectral shape data representing a spectral shape of the target voice signal, **the synthesizing device selecting the static amplitude data, the vibrato-like amplitude data, the pitch data and the spectral shape data from either of the original attribute data and the target attribute data so as to synthesize the new attribute data in the form of a combination of the selected static amplitude data, the selected vibrato-like amplitude data, the selected pitch data and the selected spectral shape data;** and
an output device that operates based on the new attribute data and either of the original residual component and the target residual component for producing the output voice signal.

The Serra reference does not disclose, teach or suggest the apparatus for converting an input voice signal into an output voice signal according to a target voice signal of claim 1, as amended. Specifically, the Serra reference does not disclose that **the synthesizing device selecting the static amplitude data, the vibrato-like amplitude data, the pitch data and the spectral shape data from either of the original attribute data and the target attribute data so as to synthesize the new attribute data in the form of a combination of the selected static amplitude data, the selected vibrato-like amplitude data, the selected pitch data and the selected spectral shape data.** The applicant has reviewed the Serra reference and does not see that the highlighted limitations are disclosed. The Serra reference discloses the extraction of SMS data, the modification of SMS data according to user controls and then the utilization of the modified SMS data to synthesize a sound in the SMS synthesizer. (*Serra*, column 39, lines 10 – 24). The Examiner notes that reference number 11, i.e., the synthesis section, is the synthesizing device recited in claim 1, as

amended. The Serra reference discloses that the extracted musical parameters are received at the synthesis section from the analysis section and acted upon. (*Serra*, col. 9, lines 3 - 7). However, there is no disclosure of a device that **selects different aspects of data from one of the target attribute data and original attribute data**, as is recited in claim 1, as amended. In addition, the Serra reference does not disclose that this selection is made **to synthesize the new attribute data in the form of a combination of the selected static amplitude data, the selected vibrato-like amplitude data, the selected pitch data and the selected spectral shape data**, as is recited in claim 1, as amended. Accordingly, applicant respectfully submits that claim 1, as amended, further discloses over the Serra reference.

Claims 5 – 12 depend, indirectly or directly, on claim 1, as amended. Accordingly, applicant respectfully submits that claims 5 – 12 distinguish over the Serra reference.

Independent claims 40, 50, 60, 69 and 70, all as amended, recite limitations similar to independent claim 1, as amended. Accordingly, applicant respectfully submits that claims 40, 50, 60, 69 and 70 distinguish over the Serra reference for reasons similar to those discussed above in regard to independent claim 1, as amended.

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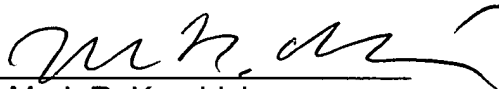
Applicant believes that all of the claims are in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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By: _____



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